

In-Class Worksheet 8: Context-Free Pumping Lemma

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Try to prove, using the context-free pumping lemma, that the following languages are not context-free.

- $\{ ww^R w \mid w \in \{0,1\}^* \}$
- $\{ m+n=p \mid \text{where } m,n,p \text{ are binary strings and } m + n = p \text{ as numbers} \}$
- $\{ 0^{2^n} \mid n \geq 0 \}$ (this one is a bit tricky)